

THE GENUS *TRACHYMENE* (APIACEAE) IN THE NORTHERN TERRITORY AND A NEW SPECIES FROM WESTERN AUSTRALIA

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Abstract

A revision of the species of *Trachymene* in the Northern Territory is provided, with a key and descriptions. Five new species are described, *T. hispida*, *T. inflata*, *T. lacerata*, *T. longipedunculata*, *T. psammophila*, and one new combination *T. rotundifolia* is made for the Northern Territory. A new species from the Kimberleys, W. Australia, *T. dendrothrix* is described.

Introduction

The genus *Trachymene* Rudge is distributed throughout the Australian mainland, Tasmania, New Caledonia and the Malesian area (Papua New Guinea, Borneo and Indonesia). The latter area has some 8 species (Buwalda, *J. Arn. Arb.* 32, 1951: 59), whilst Australia has some 30 or more species.

All types cited were examined by the author.

Northern Territory Species

Trachymene Rudge

Annual or biennial herbs with perennial rootstock; stems glabrous or pubescent, sometimes weakly striate; radical leaves ternately divided or rarely toothed, indumentum of glandular, dendroid or simple hairs rarely glabrous; petiolate, exstipulate, cauline leaves often deeply 3-lobed towards the base, becoming less dissected and eventually entire, ovate or linear towards the apex of the stem. Inflorescence and umbel of numerous white or pink or blue flowers. Involucre of linear bracts usually shortly united at the base. Calyx teeth minute or inconspicuous, subulate; corolla of 5 (4 in *T. inflata*), entire, obovate petals. Fruit a pair of mericarps, sometimes one aborted, mericarps semicircular, laterally flattened, with abaxial wing or wingless, smooth, tuberculate, hirsute or vesiculate.

Key to species

- 1. Leaves glabrous or with few setae along margins or veins 2
- Leaves pilose, glandular or villous 7
- 2. Fruits with villous or glandular indumentum *T. gilleniae* 4
- Fruits glabrous, smooth or tuberculate 3
- 3. Plants prostrate creeping *T. psammophila* 12
- Plants erect 4
- 4a. Basal leaves obovate-suborbicular *T. rotundifolia* 13
- b. Basal leaves triangular-sub-rhombic to trilobed *T. didiscoides* 2
- c. Basal leaves trisected with long setae on veins and margins *T. microcephala* 11
- d. Basal leaves palmatisect 5
- 5. Leaf lobes ovate, inflorescence 8-10 mm diam., peduncles 50-80 mm long . . . *T. longipedunculata* 10
- Leaf lobes narrow obovate to cuneate, inflorescence 20-25 mm diam., peduncles 60-120 mm 6
- 6. Mericarps wingless or with a narrow flat wing *T. glaucifolia* 6
- Mericarps with two divergent wings, wings crenulate *T. bialata* 1

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|-----|--|----------------------|----|
| 7. | Mericarps with broad wing 2-3 mm wide | <i>T. villosa</i> | 14 |
| | Mericarps wingless or wing less than 1 mm | | 8 |
| 8. | Foliage, stems and leaves with glandular hairs, strongly aromatic | | 9 |
| | Foliage, stems and leaves without glandular hairs | | 10 |
| 9. | Mericarps glabrous, laterally flattened | <i>T. glandulosa</i> | 5 |
| | Mericarps villous and with inflated lateral vesicles | <i>T. inflata</i> | 8 |
| 10. | Foliage with short dense indumentum of asperulate or scabrid dendroid setae | <i>T. dusenii</i> | 3 |
| | Foliage with non dendroid or segmented setae or hairs | | 11 |
| 11. | Foliage with short dense pilose indumentum or curved hairs, leaves orbicular-rhombic | <i>T. hispida</i> | 7 |
| | Foliage with long setae, leaves lacerate trilobed, the central lobe 3 times size of lateral, dentate | <i>T. lacerata</i> | 9 |

1. **Trachymene bialata** (Domin) B.L. Burt, J.Bot. 79:45 (1941).

Basionym: *Didiscus bialatus* Domin, Sitz. Boehm. Ges. Wiss. Prag. 51 (1908).

Holotype: R. Helms s.n., Barrow Range, 17.viii.1891(K).

Isotype: NSW.

Description

An erect but spreading annual herb to 50 cm high. Radical leaves petiolate, lamina palmatisect into 3 or 5 lobes, each lobe further segmented, glabrous occasionally slightly glaucous, petiole 20-50 mm long, lamina 25-30 mm long, 25-40 mm broad. Cauline leaves deeply 3 lobed towards the base, becoming less dissected and eventually entire and ovate towards the apex of the stem. Stems glabrous except just above bract and branch insertion where some glandular hairs occur. Inflorescence an umbel, 15-25 mm in diameter, flowers white and numerous. Mericarps 4.5-5 mm long, completely surrounded by two crenate to dentate wings ca 0.5 mm wide, and numerous papillae on lateral sides.

Specimens examined

NORTHERN TERRITORY: *C. Dunlop 2001*, Mann Range, 48 km E.N.E. Mt Davies Camp 26° 02'S, 129° 39'E, 31.x.1970 (NT); *M. Lazarides 8305*, 86 km S.E. of Docker River Mission on Ayers Rock road, 8.v.1977 (CANB, NSW, NT).

Distribution

Known only from the south-west corner of Northern Territory and adjacent Western Australia.

2. **Trachymene didiscoides** (F. Muell.) B.L. Burt, J.Bot. 79:46 (1941).

Basionym: *Hemicarpus didiscoides* F. Muell., Hook. Kew Journ. 9:18 (1857); Benth., Fl. Aust.3:351 (1866), incorrectly cited vol.6.

Lectotype: "Providence Hill, F. Muell." (K).

Description

An erect herb with a perennial root, stems ribbed. Radical leaves glabrous or sometimes with few setae along veins or at base of petiole, trilobed, cuneate or triangular. Lower cauline leaves trisected to base, lobes pinnatisect, lobes 30-40 mm long, 5-15 mm wide, upper trilobed, each lobe narrow 5-20 mm long, 0.5-2 mm wide. Inflorescence an umbel ca 10 mm diameter, peduncle 20-45 mm, involucre with linear lobes 3 mm long, pedicel 4-5 mm long. Fruit a paired mericarp, usually one aborted, tuberculate, wingless or if present only 0.5 mm wide, laterally flattened 4-5 mm long x 3 mm broad.

Specimens examined

NORTHERN TERRITORY: *G.W. Carr & A.C. Beaglehole 46557*, Jasper Gorge, 3.vii.1974 (NT); *C. Dunlop 2938*, Maria Island, 14° 53'S, 135° 43'E, 26.vii.1972 (AD, BRI, CANB, MEL, NT, PERTH), this collection is a good match for the type; *T.S. Henshall 1827*, Wangi Station, 13° 10'S, 130° 42'E, 30.v.1978

(CANB, DNA, K, NT); *M. Schultz s.n.*, Port Darwin (MEL 78178); *D.E. Symon 7873*, 10 km S. of Yaimanyi Creek, 26.vi.1972 (AD, ADW, NT).

WESTERN AUSTRALIA: *G.W. Carr & A.C. Beauglehole 46833*, 1.5 km W. of Lake Argyle turn-off, 6.vii.1974 (NT); *G.W. Carr & A.C. Beauglehole 47747*, Lennard River Gorge, King Leopold Range, 22.vii.1974 (NT).

Distribution

This species is found across the tropical end of the Northern Territory and extends into the Kimberleys of Western Australia.

3. *Trachymene dusenii* (Domin) F.M. Bailey, Comprehensive Catalogue of Queensland Plants:228 (1913).

Basionym: *Didiscus dusenii* Domin, Sitz. Boehm. Ges. Wiss. Prag. 64-65 (1908).

Holotype: Johnston 1885, near Cambridge Gulf (K).

Isotype: MEL.

Domin l.c. incorrectly ascribed the type locality to Queensland. Cambridge Gulf is in northern Western Australia.

Synonym: *Didiscus setosus* O. Schwarz, Feddes Repertorium 24:92 (1927); type, *Bleeser no.347* (B) destroyed.

Description

A rhizomatous perennial to 60 cm high. Radical leaves triangular obovate to cuneate with a dense indumentum of short dendroid setae, apex of lamina dentate, 20-25 mm wide and 25-30 mm long, three almost equal veins. Petiole 40-50 mm long, covered with dense indumentum. Cauline leaves absent or narrow-linear bract-like when present. Inflorescence an umbel, many-flowered, 20-30 mm in diameter, involucre lobes linear, ca 5 mm long, forming a distinctive "plate" at their base 3-5 mm in diameter. Mericarps laterally compressed ca 5.5 mm long and 4 mm wide, with minute papillae.

Specimens examined

NORTHERN TERRITORY: *C. Dunlop 3580*, Negri-Stirling area, 17° 17'S & 129° 40'E, 4.v.1974 (CANB, DNA, NT); *Johnston s.n.*, (type); *R.A. Perry 2319*, 35 km S.S.E. of Waterloo Station (CANB, MEL, NT).

Distribution

Known only from the western Victoria River District and adjacent Western Australia.

4. *Trachymene gilleniae* (Tate) B.L. Burt, J.Bot. 79:46 (1941).

Basionym: *Didiscus gilleniae* Tate, Report of Horn Scientific Expedition pt 3:188 (1896).

Lectotype: *R. Tate s.n.*, Mt Gillen, 1894 (K).

Description

A small annual herb to 50 cm high, mostly 20 cm high. Leaves flat, 3-5-lobed, each cuneate lobe 10-30 x 4-6 mm, again segmented or tridentate, sparsely covered with setae mostly on the veins. Petiole 40-100 mm long, mostly glabrous. Inflorescence an umbel 10-20 mm diameter, larger when in fruit, flowers numerous white to pink. Mericarps laterally flattened, wingless, 2 mm long and 1-2 mm broad, densely hirsute, bristles 1-1.5 mm long.

Specimens examined

NORTHERN TERRITORY: *A.C. Beauglehole 44852*, Trephina Gorge, Macdonnell Ranges, 1.vi.1974 (NT); *A.C. Beauglehole 45144A*, Red Bank Gorge, Heavitree Range, 10.vi.1974 (NT); *D. Boerner s.n.*, White Range Goldfield, 3.vi.1956 (NT); *C.R. Dunlop 2613*, Ormiston Gorge, nth ridge, 23° 38'S; 132° 44'E, 19.vi.1972 (AD, BRI, CANB, MEL, NSW, NT, PERTH); *P.K. Latz 3133*, Benstead Range, 23° 43'S, 134° 10'E, 27.vii.1972 (AD, CANB, DNA, K, L, NT); *P.K. Latz 4884*, Simpsons Gap National Park, 23° 41'S, 133° 43'E, 18.vi.1974 (CANB, NT).

Distribution

Known only from the ranges of central Australia (N.T.).

5. *Trachymene glandulosa* (F. Muell.) Benth., Fl. Aust. 3:350 (1866).

Basionym: *Didiscus glandulosus* F. Muell., Proc. Roy. Soc. Tasm. 3:238 (1857).

Holotype: "On the sandy banks of the Nicholson River, Gulf of Carpenteria," F. Muell. s.n., (MEL).

Isotypes: K (2 sheets).

Description

Annual herb 20-50 cm high, indumentum hirsute with glandular hairs. Radical leaves not known. Cauline leaves 3-lobed, lobes oblong-cuneate, apices mostly 3 toothed with the central toothed lobe much larger than laterals. Lower leaves petiolate, upper sessile. Inflorescence an umbel, 10-12 mm in diameter, flowers numerous, purple. Fruiting umbel 15-20 mm in diameter. Peduncles 40-100 mm long. Mericarps laterally flattened, wingless, 4-5 mm long and 3 mm wide, covered with minute papillae.

Specimens examined

NORTHERN TERRITORY: F. Muell. s.n., Nicholson River (Gulf of Carpenteria) 1857 (K); N.M. Henry 802, China Wall, Calvert Hills Station, 2.vi.1973 (CANB, DNA, NT).

Distribution

Known only from the Nicholson River area (N.T.).

6. *Trachymene glaucifolia* (F. Muell.) Benth., Fl. Aust. 3:350 (1866).

Basionym: *Didiscus glaucifolius* F. Muell., Linnaea 25:395 (1852).

Holotype: "Elders Range, latitude 31° S Oct. 1851", F. Muell. s.n. (K).

Isotype: MEL.

Description

An erect mostly glabrous and usually glaucous annual to 1 m high. Both cauline and radical leaves palmatisect of 3-5 lobes, lobes oblong-cuneate, again divided in threes. Petiole much longer than lamina, with occasional setae at the base. Inflorescence an umbel, 15-25 mm in diameter, flowers numerous, white or pale pink. Peduncles rather long. Mericarps laterally flattened, papillate, wingless, 5-6 mm long and 4-5 mm wide.

Selected specimens

NORTHERN TERRITORY: G. Chippendale s.n., (NT 6588) Simpson Desert, 113 km N. Andado H/S, 7.ix.1959 (AD, BRI, CANB, MEL, NSW, NT); C. Dunlop 1969, Bloods Range, 28.x.1970 (NT, PERTH); M. Lazarides 5819, 25 km N.N.E. Barrow Creek Township, 24.viii.1956 (CANB, NT).

An eremaeen species widely distributed in all mainland states except Victoria.

7. *Trachymene hispida* J.R. Maconochie sp. nov.

Herba erecta, caudico perenni, foliis radicalibus rosulatis, rosula interdum sursum secus caulem aliquot extensa. Caules teretes, striati, basi parce hispidi, superne glabri. Folia radicalia et caulina inferiora petiolata, orbicularia usque rhombico-cuneata, 20-40 mm longa, 20-50 mm lata, 1-3 nervosa, utrinque hispida, denticulata. Petiolus supra sulcatus, basi ampliatus, hispidus, 30-80 mm longus. Inflorescentia simpliciter umbellata, 10-15 mm diametro, pedunculo 20-100 mm bracteis anguste linearibus acuminatis 2-4 mm longis suffulto. Flores lutei vel flavi, pedicellis 5-7 mm longis. Involucrum e lobis linearibus 4 mm longis sistens. Fructus e mericarpis binis lateriliter complanatis tuberculatis 4-5 mm longis 3.5-4 mm latis sistens, ala nulla vel angustissima.

Holotype: D.E. Symon 7980, ca 11 km W. of East Alligator River crossing on road to Oenpelli, 29.vi.1972 (NT).



Fig. 1. *Trachymene hispida* J.R. Maconochie, from type, D.E. Symon 780. (Del. J. Church.)

Isotypes: ADW, CANB, K, L.

Description (Fig. 1)

Erect herb with perennial rootstock and the rosette of radical leaves sometimes extending some distance up the stem. Stems terete, striate, sparsely hispid at the base, glabrous in the upper part. Radical and lower cauline leaves petiolate, orbicular to rhombic-cuneate, 20-40 mm long, 20-50 mm wide, 1-3 nerved, hispid above and below, denticulate. Petiole channeled above, diverging at the base, hispid, 30-80 mm, subtended by narrow-linear tapering bracts 2-4 mm long. Flowers yellow or white, pedicels 5-7 mm long. Involucre of linear lobes 4 mm long. Fruit of paired mericarps, each laterally flattened, tuberculate, wingless or with very narrow wing, 4-5 mm long, 3.5-4 mm wide.

Specimens examined

NORTHERN TERRITORY: *P.K. Latz* 3795, Munmalary Stn, 12° 14'S, 132° 35'E, 10.vi.1973 (BRI, CANB, DNA, NT); *G. Chippendale* NT8217, 4 km S.S.W. Raffles Bay, 19.vii.1961 (CANB, BRI, K, NSW, NT); *Martensz and R. Schodde* AE803, 4 km S. Cannon Hill turnoff, Oenpelli Road, 8.ii.1973 (BRI, CANB, NT); *D.E. Symon* 7176, 11 km W. of East Alligator River crossing on road to Oenpelli, 8.vi.1971 (AD, CANB, NT); *G.C. Taylor* 76, 1.6 km S. of East Alligator River, 10.vi.1971 (AD, DNA, NT).

Distribution

Found in the east Alligator River area and adjacent parts in Arnhem Land (N.T.).

8. *Trachymene inflata* J.R. Maconochie sp.nov.

Herba erecta, viscida, odora, usque 50 cm alta. Caules leviter costati, pilis glandulosis 1-1.5 mm longis. Folia petiolata, flabellata usque subreniformia, basi cuneata vel subtruncata, in lobos primarios 3 divisa quoque lobo iterum trisecto vel dentato, apicibus segmentorum incrassatis. Lamina 15-20 mm longa, utrinque glanduloso-hirsuta, petiolo tereti 20-55 mm glanduloso-hirsuta. Folia caulina superiora ubi inflorescenties suffulceunt sessilia. Inflorescentia simpliciter umbellata, 15-20 flora, pedunculo 10-30 mm longo 1 mm crasso, involucro e lobis linearibus basi connatis sistente, pedicellis 4-7 mm longis, calyce obsoleto, corolla alba 4-partita, lobis dorso hirsutis 1.5 mm longis 1.5 mm latis staminibus 4. Fructus in mericarpiis 2 secedentes (altero plerumque abortu); mericarpiis 2-3 mm longa, 2 mm lata, 2 mm crassa, ala c. 1 mm lata, vesiculis lateralibus pilis numerosis glandulosis coopertis.

Holotype: *C. Dunlop* 2470, Kurundi W.H., 20° 29'S, 134° 41'E, 15.ii.1972 (NT).

Isotypes: BRI, CANB, NSW.

Description (Fig. 2)

An erect odorous viscid herb to 50 cm high. Stems weakly ribbed with glandular hairs 1-1.5 mm long. Leaves petiolate, flabellate to subreniform, cuneate or subtruncate at the base, primary division into 3 lobes, each lobe further trisected or dentate, apices of segments thickened. Lamina 15-20 mm long, glandular hirsute above and below; petiole terete, 20-55 mm, glandular hirsute. Upper cauline leaves becoming sessile when associated with flowers. Inflorescence a simple umbel of about 15-20 flowers, peduncle 10-30 mm long, 1 mm diam., involucre of linear lobes united at base, pedicel 4-7 mm long, calyx obsolete; corolla white, 4 partite, lobes hirsute on back, 1.5 mm wide; stamens 4. Fruit separating into 2 mericarps, one usually aborting, 2 mm wide and 2 mm thick with wing about 1 mm wide, with lateral vesicles covered with numerous glandular hairs 2-3 mm long.

This taxon is unusual in that it has 4-partite flowers and not the typical 5-partite of the genus.

Specimens examined

NORTHERN TERRITORY: *C. Dunlop* 2470 (type), (L. Gee) Warden, Tanami, vii-ix.1910 (NSW); *C.H. Gittens* 2436, Inningarra range, Mongrel Downs, 20° 30'S; 129° 00'E (NSW, NT).

Distribution

Known only from two disjunct localities in N.T., where it is associated with quartzitic ranges.



Fig. 2. *Trachymene inflata* J.R. Maconochie, from type, C. Dunlop 2470. (Del. J. Church.)

9. *Trachymene lacerata* J.R. Maconochie sp.nov.

Herba erecta, radice perenni, c. 1 m alta, caulibus teretibus glabris. Folia radicalia lacerata usque palmatim 3-loba; lamina 35-45 mm longa, 30-35 mm lata utrinque indumento pilosa e pilis simplicibus sursim curvatis sistente cooperta. Petiolus gracilis, 35-45 mm longus, setis longis c. 1 mm longis sparse usque modice indentus. Inflorescentia simpliciter umbellata, 8-12 mm diametro pedunculo 15-45 mm; flores numerosi, albi, pedicelli lineares, 5-6 mm longi; lobi involucales lineares, 3-4 mm longi. Fructus e mericarpiis binis sistens quoquo mericarpio lateraliter plano fere exalato 3.5-4.5 mm longo 2.5-3 mm lato tuberculato, tuberculis plerumque extra costem interiorem sitis.

Holotype: D.E. Symon 7738, 32 km north east Doingi Camp, Arnhem land, 13° 09'S, 134° 51'E (NT).

Isotypes: AD, ADW, CANB, K.

Description (Fig. 3)

An erect perennial rooted herb about 1 metre high. Stems glabrous, terete. Radical leaves lacerate to palmately 3 lobed, lamina 35-45 mm long, 30-35 mm broad, covered above and below with pilose indumentum of simple upward curving hairs. Smaller leaves rhombic to orbicular. Central lobe ovate, pinnatisect 20-25 mm wide, laterals narrow ovate, 8-10 mm wide, apices of lobes tridentate. Petiole slender 35-45 mm long sparsely to moderately covered with long setae ca. 1 mm long. Inflorescence an umbel 8-12 mm in diameter, peduncle 15-45 mm; flowers numerous, white, pedicels linear, 5-6 mm long; involucre lobes linear 3-4 mm long. Fruit of paired mericarps, each laterally flat almost wingless, 3.5-4.5 mm long, 2.5-3 mm wide, tuberculate with tubercles predominantly outside the inner ridge.

This species is allied to *T. microcephala* which only has setae along veins and margins and narrower lobes of the leaves.

Specimens examined

NORTHERN TERRITORY: J.R. Maconochie 2170, Elcho Island, 12° 01'S, 135° 37'E, 10.vii.1975 (CANB, DNA, K, NSW, NT); D.E. Symon 7738 (type); D.E. Symon 7851, 80 km N.N.W. of turnoff junction to Maningrida from Gove road, 24.vi.1972 (AD, CANB, K, NT).

Distribution

Known only from Elcho Island and adjacent part of Arnhem Land.

10. *Trachymene longipedunculata* J.R. Maconochie sp.nov.

Herba annua erecta, caulibus glabris. Folia palmatim 3-4 lobata, fere usque ad basim divisa, lobis ovatis glabris basi leviter emarginatis fere cordatis, petiolo glabro gracili 15-50 mm longo; 5 mm diametro; lobus centralis anguste trullatus, acutiuscule pinnatifidus, utrinque 5-6 segmentatus, 30-60 mm longus et 20-30 mm latus, lobis lateralibus brevioribus inaequalibus, lamina margine inferiore latius evoluta 25-40 mm longa et 10-30 mm lata. Inflorescentia simpliciter umbellata, 30-35 flora, axillaris, pedunculo gracili 40-80 mm longo 0.5 mm diametro. Involucre e bracteis anguste linearibus basi breviter connatis sistens. Flores albi, calyce obsoleto, corolla 5-partita, lobis obovatis 1 mm x 0.75 mm, pedicello 3-5 mm longo. Fructus e mericarpiis binis lateraliter complanatis exalatis tuberculatis 2 mm longis x 1 mm latis sistens.

Holotype: P.K. Latz 3237, Wessel Islands, 11° 12'S, 136° 43'E, 28.ix.1972 (NT).

Isotypes: AD, BRI, CANB.

Description (Fig. 4)

An erect annual herb, stems glabrous. Leaves palmately 3-4-lobed, almost divided to base, lobes ovate, glabrous, base weakly marginate almost cordate; petiole glabrous, slender, 15-50 mm long by 5 mm diameter. Central lobe narrowly trullate, rather sharply pinnatifid, 5-6 segments on each side, 30-60 mm long x 20-30 mm wide. Inflorescence an umbel of 30-35 flowers, axillary on long slender peduncle 45-80 mm long, 0.5 mm diam. Involucre of narrow linear bracts shortly united at base. Flowers white, calyx obsolete, corolla 5 partite, lobes obovate 1 mm x 0.75 mm, pedicel 3-5 mm long. Fruits of paired mericarps, laterally flattened, wingless, 2 mm long x 1 mm broad, tuberculate.



Fig. 3. *Trachymene lacerata* J.R. Maconochie, from type, D.E. Symon 7738. (Del. J. Church.)



Fig. 4. *Trachymene longipedunculata* J.R. Maconochie, from type, P.K. Latz 3237. (Del. J. Church.)

Specimens examined

NORTHERN TERRITORY: P.K. Latz 3237 (type); P.K. Latz 3545, Wessel Islands, 11° 09'S, 136° 44'E, 2.x.1972 (AD, DNA, NT).

Distribution

Known only from the type locality.

11. *Trachymene microcephala* (Domin) B.L. Burtt, J. Bot. 79:45 (1941).

Basionym: *Didiscus microcephalus* Domin, Sitz. Boehm. Ges. Wiss. Prag. 56(1908).

Type: Domin briefly cited the type as "North Coast, ex herb. R. Brown comm. Bennett," presumably the K sheet is the holotype with the Bennett distribution number 4524. The isotype at BM has the following label details, "Umbellat: Arnheim's Sth. Bay, Middle Point, Febr. 4-Disc. 4. 1803".

Isotypes: BM, E (2 sheets), W.

Description

Annual herb to 50 cm high, radical leaves 3 lobed, lobes narrow and subequal and often dividing again in 3's, with sparse setulose indumentum along the veins, lamina 20-30 mm long, 25-30 mm wide, setae 1-2 mm long; petiole 15-35-60 mm long. Cauline leaves linear or absent. Inflorescence an umbel 8-10 mm in diameter, flowers white, fruiting umbel 12-15 mm in diameter. Mericarps laterally flattened, with a narrow wing 0.5 mm wide, 3-4 mm long and 2-3 mm wide, weakly papillate.

One of the syntypes of *Hemicarpus didiscoides* (MEL 78172) "In campis at ostium fluminis Victoriae, *Didiscus setulosus* F.M. Sept. 1855, Ferd. Mueller," is *T. microcephala*.

Specimens examined

NORTHERN TERRITORY: R. Brown Distr. N 4524 (type); N.M. Henry 154, 21 km S.S.W. Bing Bong Homestead, 9.vi.1971 (NT); R.A. Perry 1802, 26 km E. of Borroloola Station, 28.vii.1948 (CANB, K, NT); D.E. Symon 7792, 19 km W. of Grays Bay in Caledon Bay, 26.vi.1972 (AD, CANB, K, NT).

Distribution

Found on the eastern side of Arnhem Land to the lower Gulf area and at the mouth of the Victoria River.

12. *Trachymene psammophila* J.R. Maconochie sp.nov.

Herba annua, prostrata, diffusa, foliis basalibus rosulatis. Folia basalia glabra, flabellata, triloba, lobis vel integris vel utrinque acute lobulatis basi cuneata, petiolo 5-8 mm leviter appanato 12-15 mm longo 8-15 mm lato. Folia caulina inferiore petiolata tripartita, obovata, superiora sessile et angusta. Ad basin pedunculorum et petiolarum pili glandulosi apice rubri fasciculatim congregati. Inflorescentia simpliciter umbellata, 15-25 flora, axillaris, pedunculo crasso 20-40 mm longo 1 mm lato. Involucrum e lobis anguste ovatis sistens margine dentibus sentiformibus praedito. Flores albi, calyce obsoleto, pedicellis 2-3 mm longis interdum superne bifidis, corolla 5-partita, petalis glabris 1 mm x 0.5 mm. Fructus e mericarpiis binis laevibus lucidis glutinosis exalatis 1.5-2 mm x 1.5-1.8 mm sistens, facie laterali costa semi circulari ornata.

Holotype: P.K. Latz 3275, Wessel Islands, 11° 11'S, 136° 44', 28.ix.1972 (NT).

Isotypes: AD, CANB, K.

Description (Fig. 5)

A prostrate spreading annual with a basal rosette of leaves. Radical leaves glabrous, flabellate, trilobed with lobes either entire or sharply lobulate on each side, base cuneate, petiole 5-8 mm slightly flattened, 12-15 mm long and 8-15 mm wide. Cauline leaves petiolate tripartite obovate on lower part of stem, sessile and narrow at the upper end. At the base of peduncles and petioles there are clusters of red capped glandular hairs 0.5 mm long. Inflorescence an umbel of 15-25 flowers, axillary on thick peduncles 20-40 mm long,



Fig. 5. *Trachymene psammophila* J.R. Maconochie, from type, P.K. Latz 3275. (Del. J. Church.)

1 mm wide. Involucre of narrow ovate lobes with seta-like teeth on margin. Flowers white, calyx obsolete, pedicels 2-3 mm long, sometimes bifid in upper half, corolla 5-partite, petals glabrous 1 mm x 0.5 mm. Fruit of paired mericarps, smooth, shiny, glutinous, not winged with semi-circular ridge along lateral face, 1.5-2 mm x 1.5-1.8 mm.

Distribution

This species is known only from the type collection.

13. *Trachymene rotundifolia* (Benth.) J.R. Maconochie comb. et stat. nov.

Basionym: *Trachymene hemicarpa*? var. *rotundifolia* Benth., Fl. Aust. 3:351 (1866).

Type: Armstrong 390, Port Essington (K).

Description

An erect herb to almost 1 m; root perennial; inflorescence yellow. Radical leaves petiolate, lamina orbicular to cuneate with denticulate apex, 1-3 main veins, glabrous or with few setae along veins, 20-40 mm long x 12-25 mm wide. Petiole 20-50 mm long, with sparse slender setae 3 mm long. Cauline leaves linear, almost filiform, mostly glabrous, 20-40 mm long. Inflorescence umbellate, with numerous flowers, 10-13 mm diam., pedicel 4-6 mm long, peduncle 30-50 mm long, involucre of linear bracts 4 mm long.

Specimens examined

NORTHERN TERRITORY: *G. Chippendale* NT6201, Fogg Dam, 65 km S.E. Darwin, 18.v.1959 (NT); *G. Chippendale* NT 8080, 2.5 km N. Oenpelli, 15.vii.1961 (NT); *J.R. Maconochie* 560, 72 km S. Darwin, 17.ii.1968 (NT); *D.J. Nelson* 1163, Stuart Highway, 14.5 km E. Darwin, 14.vi.1964 (AD, K, NT, PERTH); *D.J. Nelson* 1192, Acacia Gap turnoff, 65 km S. Darwin, 15.vi.1964 (AD, BRI, K, NSW, NT); *R. Schodde* AE71, Nourlangie Billabong, 8.vi.1972 (CANB, DNA, K, L, NT); *M. Shultz s.n.*, Port Darwin (MEL 78178); *M. Shultz s.n.*, Colletts Creek, near Port Darwin (MEL 37095).

Distribution

Found mostly around the Darwin area and extending to Oenpelli (N.T.).

14. *Trachymene villosa* (F. Muell.) Benth., Fl. Aust. 3:349 (1866).

Basionym: *Hemicarpus villosus* F. Muell., Hook. J. Bot. Kew Garden Miscell. 9:18-19 (1857). "In collibus arenoso-rupestribus ad rivum Sturt's Creek rarissimus". *F. Mueller s.n.*

Holotype: K.

Description

Annual herb to 1 m high, covered with villous indumentum, setae 5-7 mm long. Radical leaves 3-lobed, setae along veins and margins, sparse in the inter-veinal areas. Cauline leaves 3-lobed, lobes becoming linear towards the apex. Inflorescence an umbel 20-25 mm in diameter, flowers white to pale pink. Fruiting umbel 30-45 mm in diameter, mericarps laterally flattened strongly winged (1-2 mm wide), 7-8 mm long and 4 mm wide.

Specimens examined

NORTHERN TERRITORY: *G. Chippendale* NT2262, 63 km S. Hooker Creek, 12.vii.1956 (BRI, CANB, MEL, NSW, NT); *G. Chippendale* NT5744, 71 km S.W. Hooker Creek Settlement, 15.vi.1959 (NT); *J.R. Maconochie* 1114, 67 km S.W. Hooker Creek, 18° 40'S, 130° E, 18.vi.1971 (AD, CANB, DNA, NSW, NT, PERTH); *D. Symon* 6936, 80 km S.W. Hooker Creek, 19° 00'S, 130° E (AD, CANB, K, NT).

Distribution

Known from the Hooker Creek area of the Victoria River District (N.T.) and adjacent Western Australia.

A new species from northern Western Australia

Trachymene dendrothrix J.R. Maconochie sp. nov.

Herba erecta, usque 50 cm alta, caulibus glabris vel subglaucis. Folia radicalia lacerata, triloba, dentata, lobo media 30-40 mm longo et 20 mm lato, lobis lateralibus 30-35 mm longis et 25 mm latis, parte inferiore lobi quam pars superior latiore. Petiolus 20-60 mm longus, lamina et petiolo indumento dendroideo indutis. Folio caulina superiora triloba, lobis anguste ovatis 30-60 mm longis 3-8 mm latis indumento dendroideo indutis. Inflorescentia simpliciter umbellata, 9-12 mm diametro, floribus albis, calyce obsoleto. Involucri lobi lineares, glabri, 3-4 mm longi, pedunculis 20-40 mm. Fructus in mericarpiis duo secedens; mericarpiis tuberculata, 3.5-4 mm longa, 2-2.5 mm lata, ala deficiente vel angustissima (0.3-0.5 mm).

Holotype: J.R. Maconochie 1223, Gibb River Crossing, Kimberleys, W.A., 28.v.1971 (PERTH).

Isotypes: BRI, K, NT.

Description (Fig. 6)

An erect herb to 50 cm high, stems glabrous to slightly glaucous. Radical leaves lacerate, 3 lobed, dentate, central lobe 30-40 mm long and 20 mm wide, lateral lobes 30-35 mm long and 25 mm wide, with the lower part wider than upper part of lobe. Petiole 20-60 mm long, both lamina and petiole covered with a dendroid indumentum. Upper cauline leaves 3 lobed, lobes narrow ovate 30-60 mm long, 3-8 mm broad, covered with dendroid indumentum. Inflorescence an umbel 9-12 mm in diameter, flowers white, calyx obsolete. Involucral lobes linear, glabrous, 3-4 mm long, peduncles 20-40 mm. Fruit separating into two mericarps, 3.5-4 mm long by 2-2.5 mm wide, tuberculate, wing absent or very narrow, 0.3-0.5-1.0 mm.

This species has the leaf shape and segmentation of *T. microcephala* but its characteristic dendroid indumentum allies it with *T. dusenii* which has a non-segmented triangular obovate to cuneate lamina. Both *T. dendrothrix* and *T. dusenii* occur within the Kimberley and adjacent range complexes of W.A. and N.T. which would suggest that they are sympatric species and have evolved from a common ancestor.

Specimens examined

WESTERN AUSTRALIA: J.S. Beard 5534, 21 km S. turnoff Hall's Creek to Biluna, 19.vii.1968 (PERTH); G.W. Carr and A.C. Beaglehole 47505, ± 10 km S. of Hall's Creek, 15.vii.1974 (NT); G.W. Carr and A.C. Beaglehole 48036, Allcock Gorge, Kimberleys, 26.vii.1974 (NT); F.M. House s.n., W. Kimberleys, F.G. Brockman Expedition, 1901 (PERTH); K.F. Kenneally 4792, Camp Creek, Mitchell Plateau, 14° 52'S, 125° 46'E, 13.vi.1976 (CANB, PERTH); J.R. Maconochie 1223 (type); E.M. Scrymgeour 1830, 21 km W. Durack River, 20.v.1967 (NSW, PERTH); D.E. Symon 7077, on quartzite rocks adjacent to Gibb River Crossing ± 40 km N. of Gibb River Station, 16° 08'S, 126° 30'E, 28.v.1971 (AD, CANB, K, PERTH); P.G. Wilson 10988, Bat Isle, Bonaparte Archipelago, 15° 55'S, 124° 54'E, 26.vi.1973 (PERTH).

Distribution

Found in the lower and central Kimberleys area of Western Australia.

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Fig. 6. *Trachymene dendrothrix* J.R. Maconochie, from type, J.R. Maconochie 1223. (Del. J. Church.)